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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/648,153	08/25/2000	Jun Koyama	0756-2204	6963

7590 07/19/2002

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EXAMINER

CHOW, DOON Y

ART UNIT

PAPER NUMBER

2675

DATE MAILED: 07/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No. 09/648,153	Applicant(s) Koyama
Examiner Dennis-Doon Chow	Art Unit 2675



— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on May 24, 2002

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle 1035 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-14, 17-27, and 29-54 is/are pending in the application

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) 6, 8-14, 17-22, 24-27, 29, and 47-50 is/are allowed.

6) Claim(s) 1-5, 7, 23, 30-46, and 51-54 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some* c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____

2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

6) Other: _____

Art Unit:

1. Claims 7, 23, 34-36, 45, and 52-54 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not provide support for the “AC voltage” or “alternating voltage” as claimed in claims 7, 23, 34, 36 and 52.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks (4571225) in view of Johary et al. (5196839).

Parks discloses a liquid crystal display device comprising a first and second substrates, a liquid crystal disposed between the first and second substrates; at least one memory circuit connecting to a thin film transitory and a pixel electrode; wherein the memory circuit have a first and second invertors (col. 6, line 53-56) which includes a first and second thin film transistors.

Parks does not explicitly disclose generating gradation signals include different voltages, which can be applied to the pixels.

Art Unit:

Johary discloses a display device for generating time gradation signals or digital gradation signals)Fig. 1) which include different voltages.

Therefore, it would have been obvious to one of ordinary skill in the art to use Johary's generating means in the Parks' invention. By doing so, gradation images can be generated in Park's display device.

4. Claims 30-46 and 51-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parks in view of Runaldue et al. (5325338).

Parks discloses a liquid crystal display device comprising a first and second substrates, a liquid crystal disposed between the first and second substrates; at least one memory circuit connecting to a thin film transitory and a pixel electrode; wherein the memory circuit have a first and second invertors (col. 6, line 53-56) which includes a first and second thin film transistors.

Parks does not disclose the memory circuit having an N-channel TFT and an P-channel TFT.

Runaldue disclose a conventional memory cell have an N-channel TFT and an P-channel TFT (Fig. 3).

Therefore, It would have been obvious to one of ordinary skill in the art to substitute Runaldue's memory cell for Parks' memory circuit. This would have been obvious because both Runaldue's and Parks' memories provide the same storing function.

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5. Claims 6, 8-14, 17-22, 24-27, 29, 47-50 are allowable.

6. Claims 7 and 23 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

7. Applicant's arguments with regarding to the "AC voltage" and the "alternating voltage" are not persuasive. Therefore, the rejection of claims 7, 23, 34-36 and 45 under 35 U.S.C. 112 first paragraph stands.

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis-Doon Chow whose telephone number is (703) 3-54398.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Saras, can be reached at (703) 305-9720.

Any response to this action should be mailed to:

commissioner of Patents and Trademarks

Washington, D.C. 20231

Art Unit:

or faxed to:

(703) 872-9314 (for Technology center 2600 only)

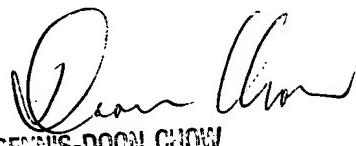
Hand-delivered response should be brought to:

Crystal Park II, 2121 Crystal Drive

Arlington, VA. Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)306-0377.

D. Chow
AU. 2675
July 14, 2002



DENNIS-DOON CHOW
PRIMARY EXAMINER